

PATENT ABSTRACTS OF JAPAN

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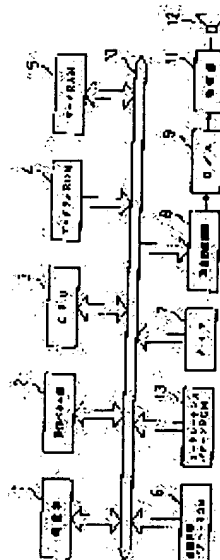
(54) AUTOMATIC ACCOMPANIMENT DEVICE

(57)Abstract:

PURPOSE: To automatically advance chords for accompaniment by reading previously set chord advancing pattern according to the kind of a desired rhythm when the kind of the desired rhythm is selected by a rhythm selecting means.

CONSTITUTION: A chord advancing pattern storage means 13 is stored with the chord advancing pattern which is set previously according to the kind of a rhythm.

The rhythm selecting means 3 selects the kind of the rhythm. A pattern read means 3 reads an accompaniment pattern and the chord advancing pattern which correspond to the kind of the rhythm selected by the rhythm selecting means 3 out of an accompaniment pattern storage means 6 and a chord advancing pattern storage means 13. Then a data processing means 3 generates accompaniment sound data for automatic accompaniment by varying an accompaniment sound according to the chord advance of the chord advancing pattern by using the pattern data read out by the pattern read means 3, and an accompaniment sound generating means 8 generates the accompaniment sound according to the accompaniment sound data generated by a data processing means 3. Consequently, the chord advance for the accompaniment is performed automatically.



Rhythm

accompaniment

chord progression

0261

<Document Name> Drawings

Fig. 1

18 operator group

20 display section

22 sound source

Fig. 3

(a) [from top to bottom]

Header

Pattern number X-X

Pattern number X-Δ

End

(b) [from top to bottom]

Pattern number 1-1

Pattern number 1-2

Pattern number M-8

(c) [from top to bottom and left to right]

Header

Time

Note number

Velocity

End

Fig. 4

Main processing

S1 Has the setting been made to carry out an automatic performance?

S2 Has the start switch been pressed?

S3 Timer interrupt setting processing

S4 Has the stop switch been pressed?

S5 Timer interrupt prohibition processing

S6 Other processing

Fig. 5

Timer interrupt processing

S11 Has the song started?

S13 Make the tick $t, t + 1$ and advance to the next tick

S14 Is it the end of the current performance pattern?

S15 Has the song ended?

S16 Make the tick $t, 0$

S17 Update the performance pattern to the next pattern number

S18 Are there performance data for the current tick of the current pattern?

S19 Output to the sound source

S20 Has a PAD switch been pressed?

S21 The information produced by the pressing of a PAD switch or a PAD switch and the DEL switch is stored in a new region of the RAM together with the current sequence number and the pattern number appended.

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Return

S22 Produce a new performance pattern based on the information that has been stored in the RAM by the S21 processing. In addition, the pattern number of the performance pattern that corresponds to the new performance pattern is modified to a new pattern number during the song,

S23 The automatic performance terminates.

Return

Fig. 6

(a)

Header

(b)

Header

Fig. 7

Timer interrupt processing

S31 Has the song started?

S32 Clear the buffer.

S33 Make $t, 0$

S34 Make the tick $t, t + 1$ and advance to the next tick.

S35 Is it the end of the current performance pattern?

S36 Has the song ended?

S37 Has there been a change?

S38 Rewrite the song based on the contents of the buffer.

S39 Clear the buffer.

S40 Make the tick $t, 0$

S41 Update the performance pattern to the next pattern number.

S42 Performance processing

Return

S43 Has there been a change?

S44 Rewrite the song based on the contents of the buffer.

S45 The automatic performance terminates.

Return

Fig. 8

S42 Performance processing

S51 Are there performance data for the current tick of the current pattern?

S52 Has the DEL switch been pressed

S53 Output to the sound source.

S54 Store in the buffer.

S55 Has a PAD switch been pressed together with the DEL switch?

S56 Do the PAD switch and the note number correspond?

S57 Has the PAD switch been pressed independently?

S58 Output to the sound source.

S59 Store in the buffer.

Return